

BBNA Tribal Energy Efficiency & Conservation Block Grant Program

Administered by Alaska Building Science Network

New Stuyahok Final Report



Community Summary

Two (2) community buildings owned by the New Stuyahok Traditional Council received energy efficient weatherization upgrades:

Tribal Office
Tribal Store

Retrofits Completed: July 2012

Village-Wide Energy Efficient Weatherization Retrofit Summary:

Total Building Savings All Measures:

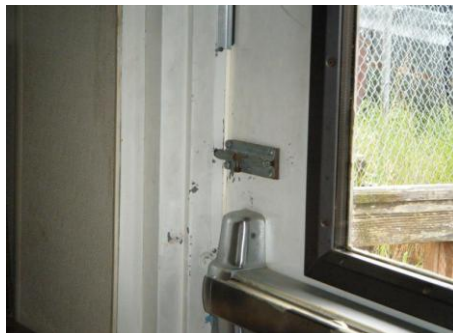
• Projected Annual Electrical Savings (kWh):	2,083
• Projected Annual Electrical Cost Savings:	\$746 ¹
• Projected Annual Fuel Savings (gallons):	1,437
• Projected Annual Heating Fuel Cost Savings:	\$8,751 ²
• Total Projected Annual Energy Cost Savings:	\$9,497
• Total village wide In-kind contribution:	\$2,960
• Total project cost including In-kind contributions:	\$46,724
• Simple Payback (including In-kind contributions):	4.92 years

¹ kWh Rate [used to calculate electrical cost savings] for Weatherization & Heating Measures (AkWarm Library): \$0.36

² #2 Heating Fuel Rate [used to calculate heating fuel savings] (AkWarm Library): \$6.09/gal

Tribal Office

Weatherization Retrofit Summary:



Materials Installed

Weather stripping and door sweeps added to man doors

Installed programmable thermostat

Installed exhaust ventilation fan in bathroom with smart switch

Air sealed attic and installed R-21 loose fill cellulose insulation and baffles

Installed 2" rigid foam insulation in rim joist and air sealed with spray foam

Installed vapor barrier and R-21/R-30 fiberglass roll insulation on crawl space floor and perimeter

• Pre-retrofit energy use:	1,308 gallons / 2,180 kWh
• Post-retrofit energy:	1,027 gallons / 1,712 kWh
• Annual energy savings projection:	281 gallons / 468 kWh
• Pre-retrofit to post retrofit energy reduction:	21% (Fuel) / 21% (Electricity)
• Estimated Annual Heating Fuel Cost Savings:	\$1,711.29
• Estimated Annual Electrical Cost Savings:	\$168.48

Tribal Store

Weatherization Retrofit Summary:



Materials Installed

Weather stripping and door sweeps added to man doors

Installed 2 programmable thermostats

Air sealed attic and installed R-21 loose fill cellulose insulation and baffles

Installed 2" rigid foam insulation in rim joist and air sealed with spray foam

Installed vapor barrier and R-21/R-30 fiberglass roll insulation on crawl space floor and perimeter

• Pre-retrofit energy use:	2,443 gallons / 3,593 kWh
• Post-retrofit energy:	1,287 gallons / 1,978 kWh
• Annual energy savings projection:	1,156 gallons / 1,615 kWh
• Pre-retrofit to post retrofit energy reduction:	47% (Fuel) / 45% (Electricity)
• Estimated Annual Heating Fuel Cost Savings:	\$7,040.04
• Estimated Annual Electrical Cost Savings:	\$581.40